

Links Course data &
rec'd 9.7-12 via e-mail attachment mp

Links

BBP-643

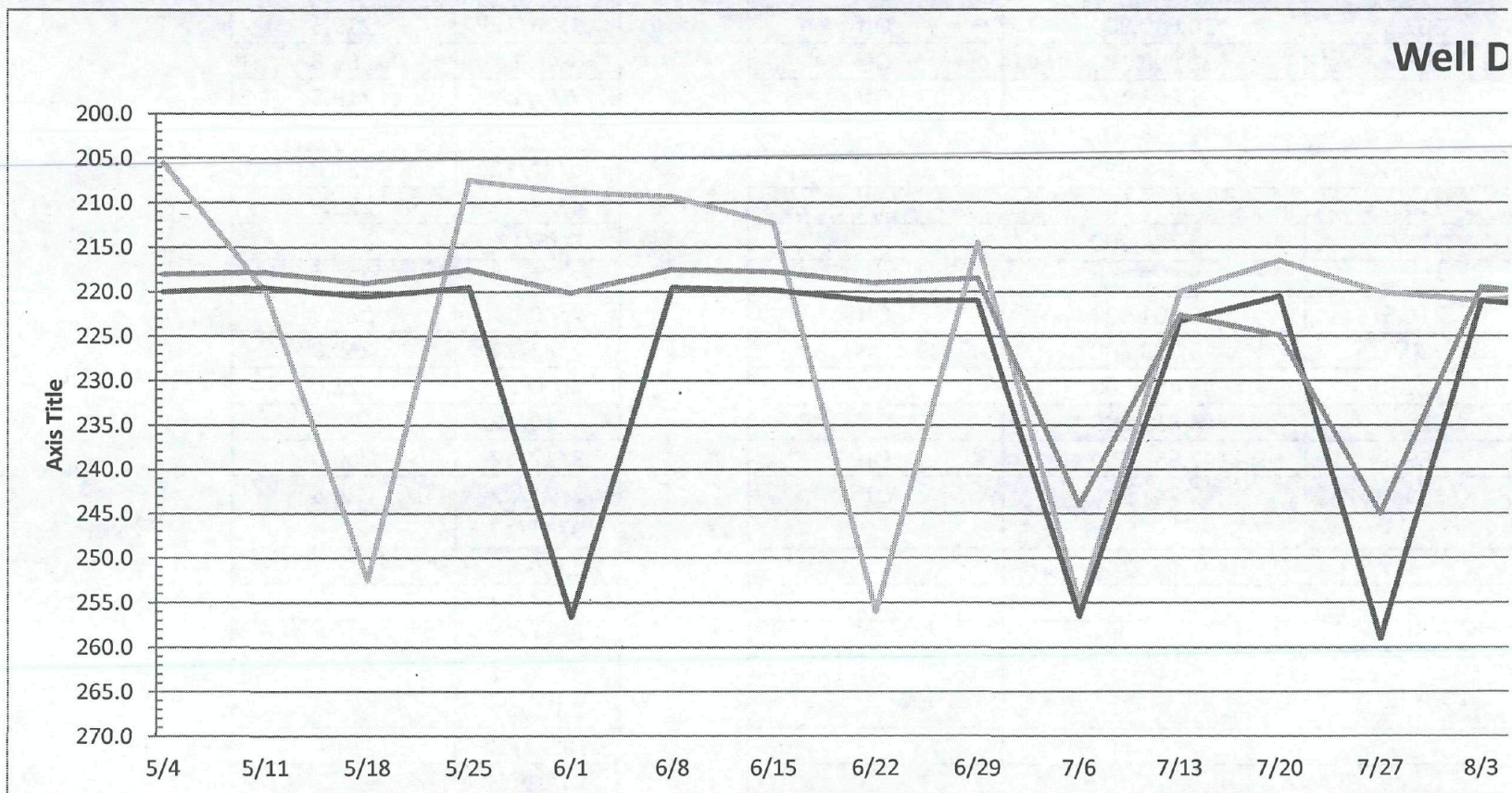
Date	Level (feet)	Meter (Gallons)	Pump On/Off
5/4/2012	205.5	-	-
5/11/2012	220.0	29,540,900	Off
5/18/2012	252.5	30,342,500	Off
5/25/2012	207.5	30,650,900	Off
6/1/2012	208.8	31,808,100	Off
6/8/2012	209.3	31,808,100	Off
6/15/2012	212.3	31,808,100	Off
6/22/2012	256.0	34,068,600	On
6/29/2012	214.5	34,326,200	Off
7/6/2012	255.0	34,764,000	On
7/13/2012	220.0	37,577,200	Off
7/20/2012	216.5	38,501,000	Off
7/27/2012	220.0	40,003,300	Off
8/3/2012	221.0	42,458,500	Off
8/10/2012	220.0	44,855,300	Off
8/17/2012	259.5	47,663,500	On
8/24/2012	219.7	49,781,900	Off
8/31/2012			
9/7/2012			
9/14/2012			
9/21/2012			
9/28/2012			
10/5/2012			
10/12/2012			
10/19/2012			
10/26/2012			
11/2/2012			
11/9/2012			
11/16/2012			
11/23/2012			

Date	Level (feet)
5/4/12	220.0
5/11/12	219.5
5/18/12	220.5
5/25/12	219.5
6/1/12	256.6
6/8/12	219.5
6/15/12	219.8
6/22/12	221.0
6/29/12	221.0
7/6/12	256.5
7/13/12	223.3
7/20/12	220.5
7/27/12	259.0
8/3/12	221.0
8/10/12	222.0
8/17/12	260.0
8/24/12	224.3
8/31/12	
9/7/12	
9/14/12	
9/21/12	
9/28/12	
10/5/12	
10/12/12	
10/19/12	
10/26/12	
11/2/12	
11/9/12	
11/16/12	
11/23/12	

Cert # 62-28621

11/30/2012			
12/7/2012			
12/14/2012			
12/21/2012			
12/28/2012			
Total Usage 20,241,000			

11/30/12	
12/7/12	
12/14/12	
12/21/12	
12/28/12	
Total Usage	



Water use data for The Links

	2000	2001	2009	2010
March	0	5,778,647	0	0
April	1,789,998	9,070,528	0	0
May	7,636,848	14,436,388	4,485,346	221,382
June	13,421,440	14,467,338	12,591,612	1,883,934
July	19,190,084	15,081,027	16,164,243	11,265,334
August	18,286,033	13,204,778	7,668,868	9,638,894
September	7,586,757	8,809,130	3,568,938	2,715,397
October	1,681,051	1,856,588	1,804,791	0
TOTAL Gals	69,592,211	82,704,424	46,283,798	25,724,941
<i>Acre-feet</i>	213.57	253.81	142.04	78.95

*Based on pump service records dating from original install of 6/18/98 to 3/30/2001, the total gallons pumped was 186,162,719. This is an average of 62,054,239 gallons. This covers irrigation use for 1998, 1999 and 2000.
(170 AF)



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13

MAR 07 2011

WA State Department
of Ecology (SWRO)RE Water Monitoring Report
for G2-28621

Date March 4, 2011

To Department of Ecology
Southwest Regional Office
Water Resources
PO Box 47775
Olympia, WA 98504-7775From Glenn Hirai
1416 - 112TH Avenue NE
Bellevue, WA 98004Phone #
Fax #Phone # 425.646.6919
Fax # 425.455.3828

WE ARE SENDING YOU:

☐ Fax PAGE(S) including cover sheet _____☒ Attached☐ Under separate cover via _____ the following items:☐ Shop drawings
☐ Copy of letter☐ Prints
☐ Change order☐ Plans
☐ Contract☐ Samples☐ Specifications

COPIES	DATE	# Pgs	DESCRIPTION
1	2/14/2011		Hawks Prairie Golf Course Monitoring Results - Links Course

THESE ARE TRANSMITTED as checked below:

☐ For approval
☐ For your use
☒ As requested
☐ For review and comment☐ Approved as submitted
☐ Approved as noted
☐ Returned for corrections☐ Resubmit _____ copies for approval
☐ Submit _____ copies for distribution
☐ Return _____ corrected prints

Remarks

Please find attached, the water monitoring report for G2-28621. Wells are located at the Golf Club at Hawks Prairie, 9051 46th Avenue NE, Lacey, WA 98516. Should you have any questions, please let me know.

Thank you

Copy to:

Signed



5309 Shilshole Avenue NW
Suite 200
Seattle, WA 98107
206.789.9656 phone
206.789.9684 fax

www.adolfson.com

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MAR 07 2011

WA State Department
of Ecology (SWRO)

February 14, 2011

Mr. Glenn Hirai
Oki Golf
1416 – 112th Avenue NE
Bellevue, WA 98004

RE: Golf Club at Hawks Prairie Well Monitoring Results – The Links

Dear Glenn:

As requested, ESA Adolfson (Adolfson) has continued to conduct monthly ground water level monitoring and quarterly chloride monitoring throughout 2010 from the well located at The Links course of the Golf Club at Hawks Prairie in Lacey, Washington.

Per our agreement, we began collecting monthly water levels in August 2007. Data for The Links monitoring well was last reported in a letter dated February 25, 2010.

Water levels were collected using an electronic water level indicator, measured to the nearest 0.1 foot. Water levels are presented both as the raw number measured in the field, and the calculation of the depth below ground surface. For the well at The Links course, the top of the well casing (located within a utility vault) is located 3.2 feet below grade.

Also per our agreement, we collected chloride samples from the monitoring well quarterly – in February, April, August, and December of 2010. The chloride samples were collected in the field and analyzed by Aquatic Research in Seattle. Copies of the laboratory results are attached for your reference.

The attached table provides a summary of the water levels and chloride monitoring results collected from the well for 2010. The chloride results are well below the action level of 100 mg/L, and the measurements of water levels have remained consistent throughout. Per your permit requirements, a copy of these results should be submitted to the Washington State Department of Ecology by the end of February.

Please don't hesitate to call if you have any questions or require additional information. I will be contacting you regarding an amendment to our contract to continue monitoring water levels on a monthly basis, and collect chloride samples quarterly throughout 2011.



Page 2

Very truly yours,

A handwritten signature in blue ink, appearing to read 'Lisa B. Adolfson', written in a cursive style.

Lisa Adolfson
Senior Project Manager
ESA Adolfson

Attachments: Summary table
Laboratory data

**Golf Club at Hawks Prairie
The Links Course Well***

Date	Water Level Measurement (feet)**	Calculated depth below ground surface (+3.2 ft)	Pump Status	Chloride concentration (mg/L)
1/20/2010	206.5	209.7	not running	
2/25/2010	214.3	217.5	not running	
3/18/2010	212.1	215.3	not running	2.05
4/23/2010	211.9	215.1	not running	
5/13/2010	216.4	219.6	not running	
6/23/2010	227.7	230.9	not running	1.76
7/20/2010	222	225.2	not running	
8/17/2010	260	263.2	running	1.66
9/29/2010	207	210.2	not running	
10/28/2010	206.8	210	not running	
11/30/2010	210	213.2	not running	
12/29/2010	205.2	208.4	not running	1.66
1/26/2011	205.2	208.4	not running	

*The well at the Links course is not specified by a unique identification number on the Ecology Permit (# G2-28621) and no unique identification number is posted on the well. The well is located within the NW 1/4 of Section 23, Township 29 N., Range 1 W.

**Water levels are measured from the top of the well casing within the utility vault. This location is 3.2 feet below ground surface.



AQUATIC RESEARCH INCORPORATED

LABORATORY & CONSULTING SERVICES

3927 AURORA AVENUE NORTH, SEATTLE, WA 98103

PHONE: (206) 632-2715 FAX: (206) 632-2417

CASE FILE NUMBER:	ADL001-69	PAGE 1
REPORT DATE:	04/02/10	
DATE SAMPLED:	03/18/10	DATE RECEIVED: 03/18/10
FINAL REPORT, LABORATORY ANALYSIS OF SELECTED PARAMETERS ON WATER SAMPLES FROM ADOLFSON ASSOCIATES		

CASE NARRATIVE

Three water samples were delivered to the laboratory in good condition. The samples were analyzed according to the chain of custody. No difficulties were encountered in the preparation or analysis of these samples. Sample data follows while QA/QC data is contained on subsequent pages.

SAMPLE DATA

SAMPLE ID	CHLORIDE (mg/L)
LINKS COURSE	2.05
WOODLAND 2	3.52
WOODLAND 3	15.6



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CASE FILE NUMBER: ADL001-69 PAGE 2
REPORT DATE: 04/02/10
DATE SAMPLED: 03/18/10 DATE RECEIVED: 03/18/10
FINAL REPORT, LABORATORY ANALYSIS OF SELECTED PARAMETERS ON WATER
SAMPLES FROM ADOLFSON ASSOCIATES

QA/QC DATA

QC PARAMETER	CHLORIDE (mg/L)
METHOD	SM18 4500CLC
DATE ANALYZED	04/01/10
DETECTION LIMIT	0.50
DUPLICATE	
SAMPLE ID	BATCH
ORIGINAL	2.44
DUPLICATE	2.35
RPD	4.08%
SPIKE SAMPLE	
SAMPLE ID	BATCH
ORIGINAL	2.44
SPIKED SAMPLE	12.1
SPIKE ADDED	10.0
% RECOVERY	96.78%
QC CHECK	
FOUND	28.6
TRUE	30.0
% RECOVERY	95.47%
BLANK	<0.50

RPD = RELATIVE PERCENT DIFFERENCE.

NA = NOT APPLICABLE OR NOT AVAILABLE.

NC = NOT CALCULABLE DUE TO ONE OR MORE VALUES BEING BELOW THE DETECTION LIMIT.

OR = RECOVERY NOT CALCULABLE DUE TO SPIKE SAMPLE OUT OF RANGE OR SPIKE TOO LOW RELATIVE TO SAMPLE CONCENTRATION.

SUBMITTED BY:

Steven Lazoff

Laboratory Director

CHAIN-OF-CUSTODY RECORD

CLIENT: ESA Adelson - Lisa Adelson

SAMPLING DATE: 3/18/2010

SAMPLERS: A. B. 7

SHEET OF

PROJECT ID:

CASE FILE NO.:

DATA RECORDED BY:

SAMPLE INFORMATION

[illegible]

Printed Name	AARON BOY	Date/Time	3/18/10	Received By	S. HILSON	Date/Time	3/18/10
Signature	[Signature]		3:45		[Signature]		1545
Affiliation	EAT ALH				JMS		

Relinquished By		Date/Time		Received By		Date/Time	
Printed Name							
Signature							
Affiliation							

miscellaneous Notes (1 kgzmdous Materials, Quick turn-around time, etc.).



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CASE FILE NUMBER:	ADL001-71	PAGE 1
REPORT DATE:	07/12/10	
DATE SAMPLED:	06/23/10	DATE RECEIVED: 06/23/10
FINAL REPORT, LABORATORY ANALYSIS OF SELECTED PARAMETERS ON WATER SAMPLES FROM ADOLFSON ASSOCIATES		

CASE NARRATIVE

One water sample was delivered to the laboratory in good condition. The sample was analyzed according to the chain of custody. No difficulties were encountered in the preparation or analysis of this sample. Sample data follows while QA/QC data is contained on subsequent pages.

SAMPLE DATA

CHLORIDE	
SAMPLE ID	(mg/L)
LINKS WELL SAMPLE	1.76



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CASE FILE NUMBER: ADL001-71 **PAGE 2**
REPORT DATE: 07/12/10
DATE SAMPLED: 06/23/10 **DATE RECEIVED:** 06/23/10
FINAL REPORT, LABORATORY ANALYSIS OF SELECTED PARAMETERS ON WATER
SAMPLES FROM ADOLFSON ASSOCIATES

QA/QC DATA

QC PARAMETER	CHLORIDE (mg/L)
METHOD	SM18 4500CLC
DATE ANALYZED	07/12/10
DETECTION LIMIT	0.50
DUPLICATE	
SAMPLE ID	LINKS WELL SAMPLE
ORIGINAL	1.76
DUPLICATE	1.86
RPD	5.41 %
SPIKE SAMPLE	
SAMPLE ID	LINKS WELL SAMPLE
ORIGINAL	1.76
SPIKED SAMPLE	11.6
SPIKE ADDED	10.0
% RECOVERY	98.73 %
QC CHECK	
FOUND	28.9
TRUE	30.0
% RECOVERY	96.45 %
BLANK	<0.50

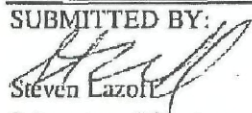
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SUBMITTED BY:


Steven Lazof
Laboratory Director



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PHONE: (206) 632-2715 FAX: (206) 632-2417

CASE FILE NUMBER:	ADL001-72	PAGE 1
REPORT DATE:	09/07/10	
DATE SAMPLED:	08/17/10	DATE RECEIVED: 08/17/10
FINAL REPORT, LABORATORY ANALYSIS OF SELECTED PARAMETERS ON WATER		
SAMPLES FROM ADOLFSON ASSOCIATES		

CASE NARRATIVE

Three water samples were delivered to the laboratory in good condition. The samples were analyzed according to the chain of custody. No difficulties were encountered in the preparation or analysis of these samples. Sample data follows while QA/QC data is contained on subsequent pages.

SAMPLE DATA

SAMPLE ID	CHLORIDE (mg/L)
LINKS	1.66
WELL 211	21.3
WELL 327	18.3



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CASE FILE NUMBER:	ADL001-72	PAGE 2
REPORT DATE:	09/07/10	
DATE SAMPLED:	08/17/10	DATE RECEIVED: 08/17/10
FINAL REPORT, LABORATORY ANALYSIS OF SELECTED PARAMETERS ON WATER		
SAMPLES FROM ADOLFSON ASSOCIATES		

QA/QC DATA

QC PARAMETER	CHLORIDE (mg/L)
METHOD	SM18 4500CLC
DATE ANALYZED	09/03/10
DETECTION LIMIT	0.50
DUPLICATE	
SAMPLE ID	WELL 327
ORIGINAL	18.3
DUPLICATE	18.2
RPD	0.54%
SPIKE SAMPLE	
SAMPLE ID	WELL 327
ORIGINAL	18.3
SPIKED SAMPLE	28.0
SPIKE ADDED	10.0
% RECOVERY	96.78%
QC CHECK	
FOUND	28.9
TRUE	30.0
% RECOVERY	96.45%
BLANK	<0.50

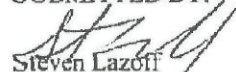
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SUBMITTED BY:


Steven Lazoff

Laboratory Director



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LABORATORY & CONSULTING SERVICES

3927 AURORA AVENUE NORTH, SEATTLE, WA 98103

PHONE: (206) 632-2715 FAX: (206) 632-2417

CASE FILE NUMBER:	MIS021-83	PAGE 1
REPORT DATE:	01/05/11	
DATE SAMPLED:	12/29/10	DATE RECEIVED: 12/29/10
FINAL REPORT, LABORATORY ANALYSIS OF SELECTED PARAMETERS ON WATER		
SAMPLES FROM ADOLFSON ASSOCIATES		

CASE NARRATIVE

One water sample was delivered to the laboratory in good condition. The sample was analyzed according to the chain of custody. No difficulties were encountered in the preparation or analysis of this sample. Sample data follows while QA/QC data is contained on subsequent pages.

SAMPLE DATA

CHLORIDE	
SAMPLE ID	(mg/L)
LINKS WELL	1.66



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PHONE: (206) 632-2715 FAX: (206) 632-2417

CASE FILE NUMBER:	MIS021-83	PAGE 2
REPORT DATE:	01/05/11	
DATE SAMPLED:	12/29/10	DATE RECEIVED: 12/29/10
FINAL REPORT, LABORATORY ANALYSIS OF SELECTED PARAMETERS ON WATER		
SAMPLES FROM ADOLFSON ASSOCIATES		

QA/QC DATA

QC PARAMETER	CHLORIDE (mg/L)
METHOD	SM18 4500CLC
DATE ANALYZED	01/04/11
DETECTION LIMIT	0.50
DUPLICATE	
SAMPLE ID	BATCH
ORIGINAL	1.37
DUPLICATE	1.37
RPD	0.00%
SPIKE SAMPLE	
SAMPLE ID	BATCH
ORIGINAL	1.37
SPIKED SAMPLE	11.0
SPIKE ADDED	10.0
% RECOVERY	96.78%
QC CHECK	
FOUND	28.4
TRUE	30.0
% RECOVERY	94.82%
BLANK	<0.50

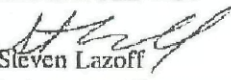
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SUBMITTED BY:


Steven Lazoff
Laboratory Director

miscellaneous Notes (Hazardous Materials, Quick turn-around time, etc.):